Underground Injection Control (UIC) Program Rules

Laws & Regulations

- Clean Water Act
- Safe Drinking Water Act
- State Pollution Control Act
- State Waste Discharge Permits (173-216 WAC)
- Ground Water Quality Standards (173-200 WAC)
- UIC Program (173-218 WAC)

Guidance

- UIC Guidance
- Eastern Stormwater Manual
- Western WA Stormwater Manual
- Approved Local Manual

Rule Revision Timeline

Public Review	July 6 – Sept. 15, 2005
Public hearings	August 16 - 24th
Comments due	Sept. 15
Anticipated rule adoption	Oct. 15, 2005 – January 2, 2006

What is a UIC well?

- Dry wells
- French drains
- Boreholes
- Drill holes
- Drainfields
- Leachfields

What is a UIC well?

Terminology

- Rule Authorized
- Non-Endangerment Standard
- The Ground Water Quality Standards
- Presumptive Approach
- Demonstrative Approach

New Stormwater UIC Wells

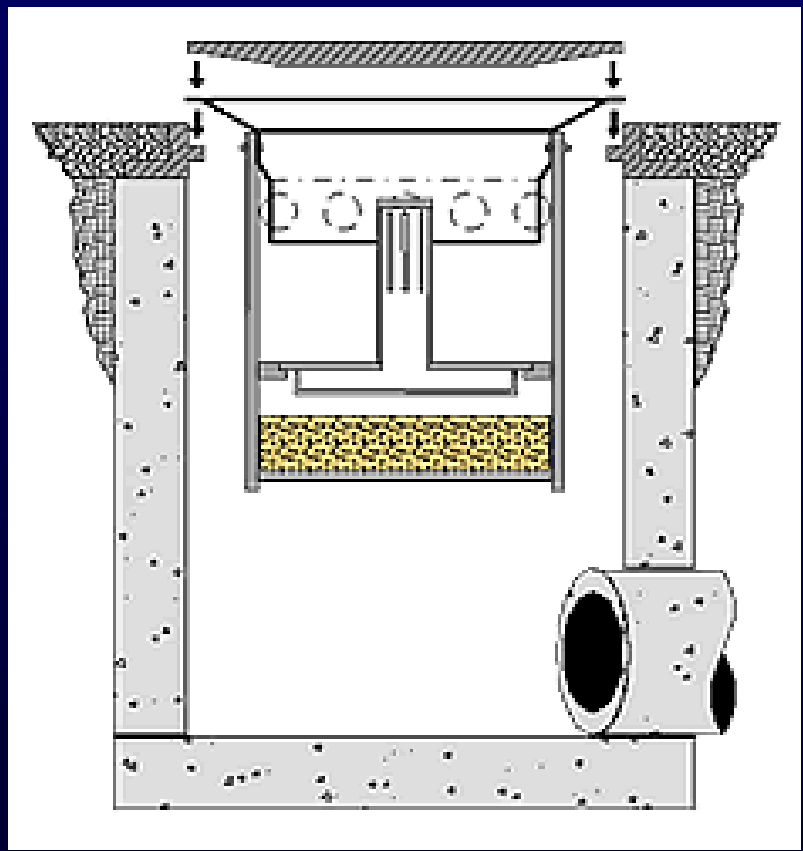
- Best Management Practices
- Separation
- Local ground water protection requirements

Best Management Practices

Bioswale

Best Management Practices

Catch Basin/Insert



Aqua-Guard™

Maintenance

Clogged Catch Basin

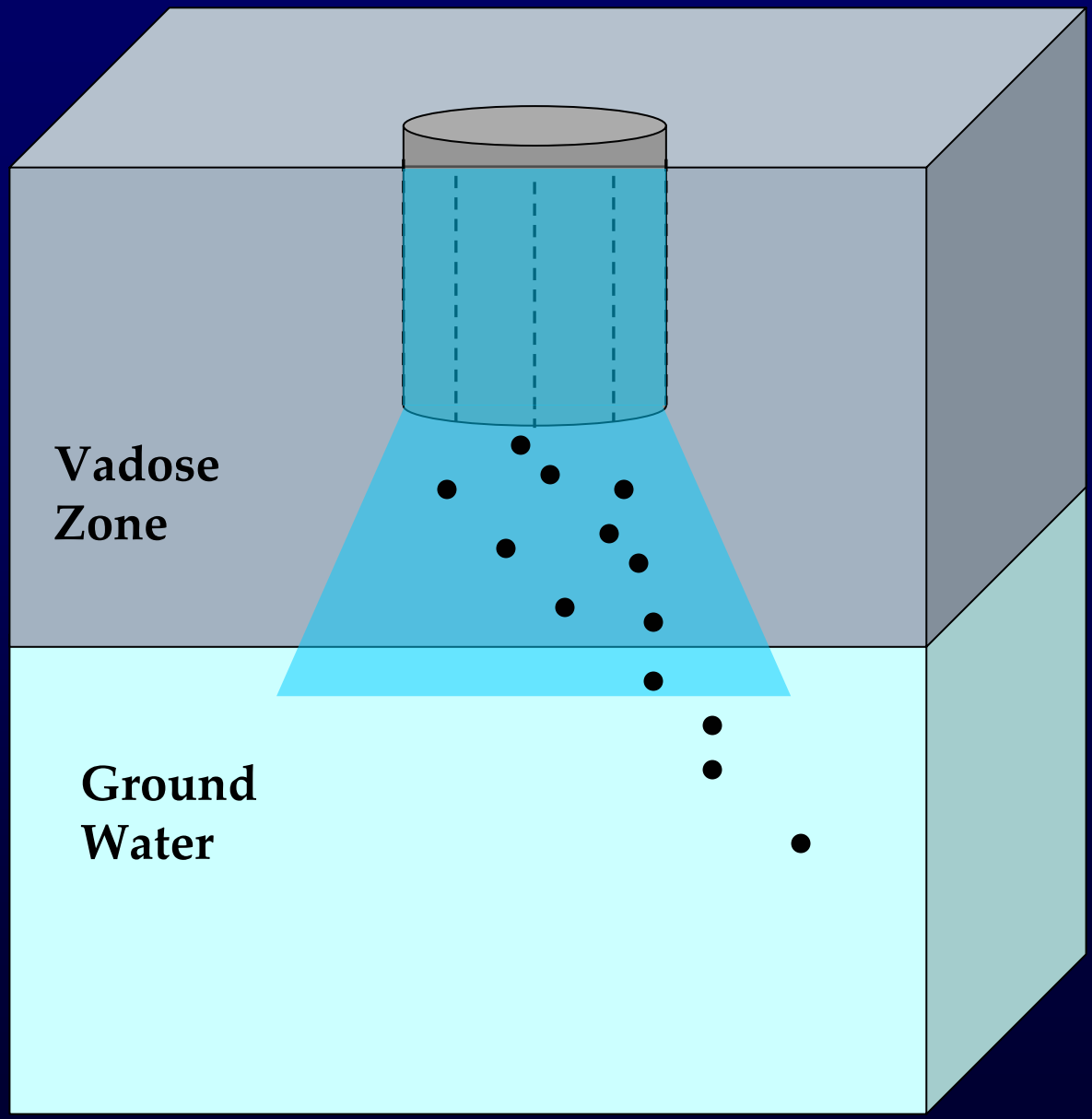

Vadose
Zone
Ground
Water

Table 1: Vadose Zone Conditions

Classification	Description
High 6’	Really fine (sandy silt/clay; till)
Medium 10’	Medium coarse (sand; alluvium)
Low 25’	Coarse (sand, some gravel)
None NA	Very Coarse (gravel, cobbles)

Table 2
Pollutant Loading Classifications for Solids, Metals, and Oil in Stormwater Runoff

Classification	Areas Contributing Runoff (ADT = Average Daily Traffic)
Insignificant	Pretty clean
Low	Some parking or traffic
Medium	More parking or traffic
High	A lot of parking or traffic

Table 3
Pre-treatment for Solids, Oil and Metals

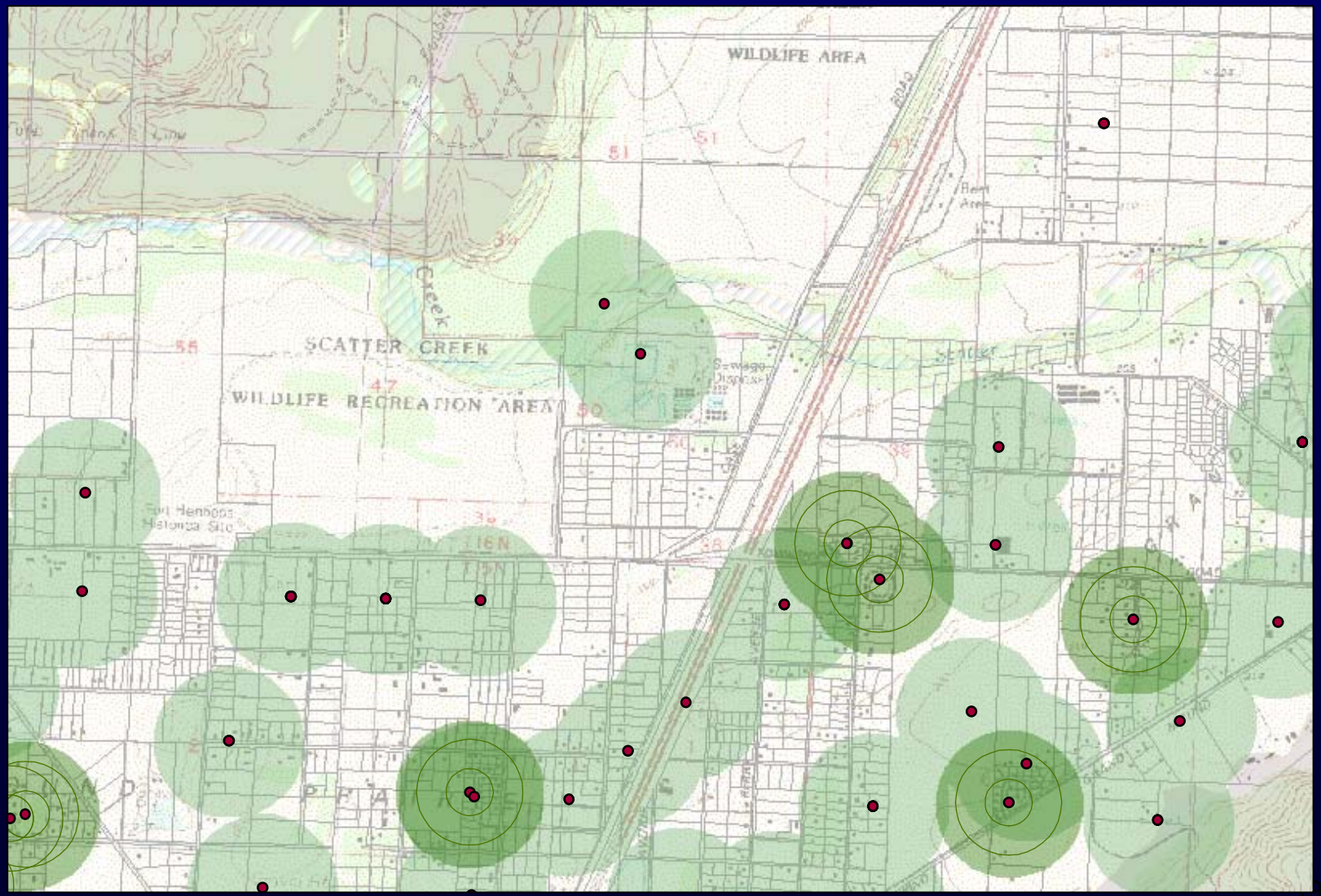
Treatment Capacity / Pollutant Loading	High 6’	Medium 10’	Low 25’	None NA
Insignificant	-	-	-	-
Low	-	-	-	Remove solids
Medium	Two-stage drywells	Two-stage drywells	Remove solids	Remove solids
High	Remove oil	Remove oil	Remove oil and solids	Remove oil and solids

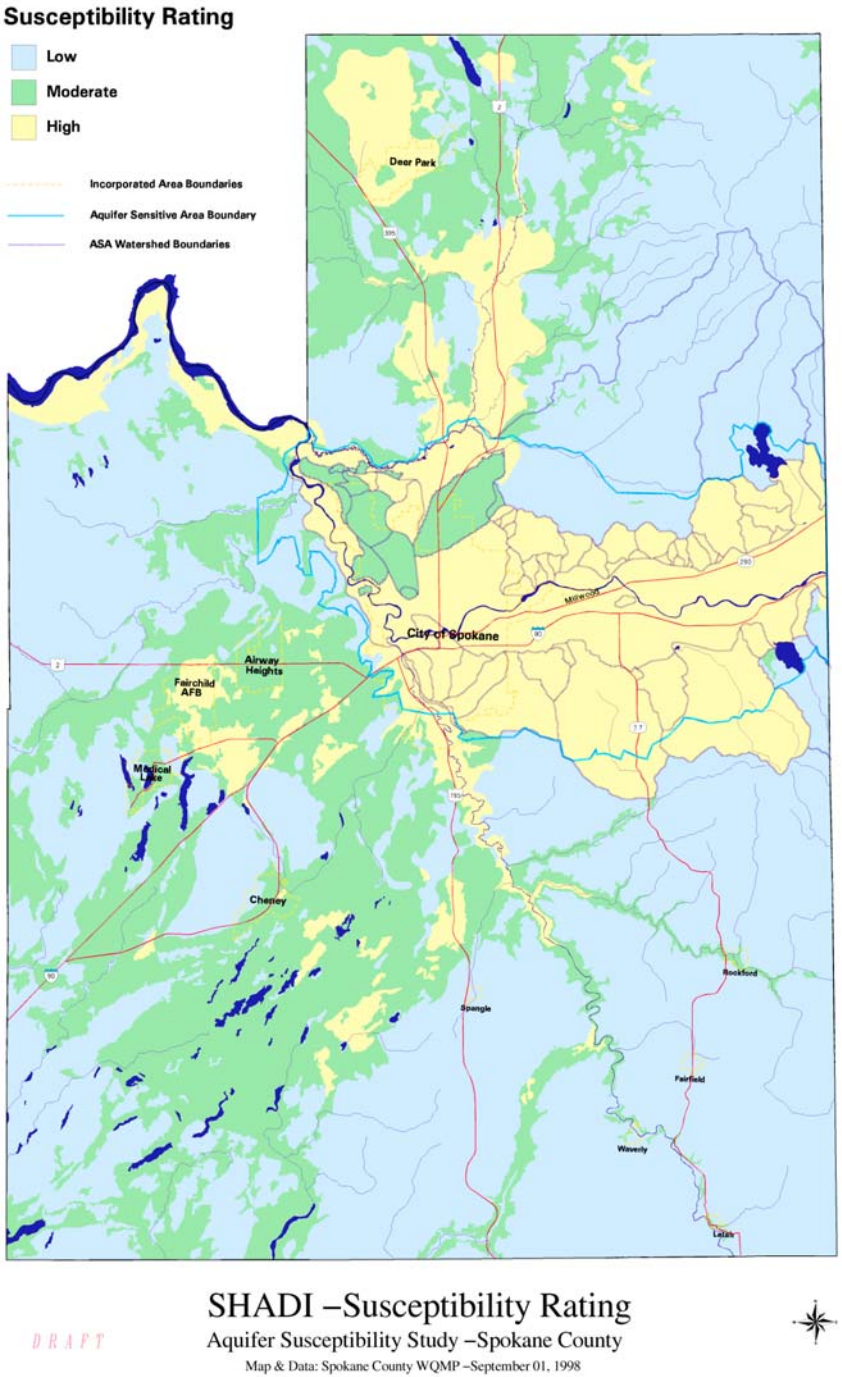
Average Daily Traffic


Chrome electroplater Hazardous Waste Former Cleanup Site
Five-year Time of Travel
Chemical Company Underground storage tank
Dry Cleaner Hazardous Waste
One-year Time of Travel


Five-year Time of Travel
One-year Time of Travel

Well Head Protection Areas



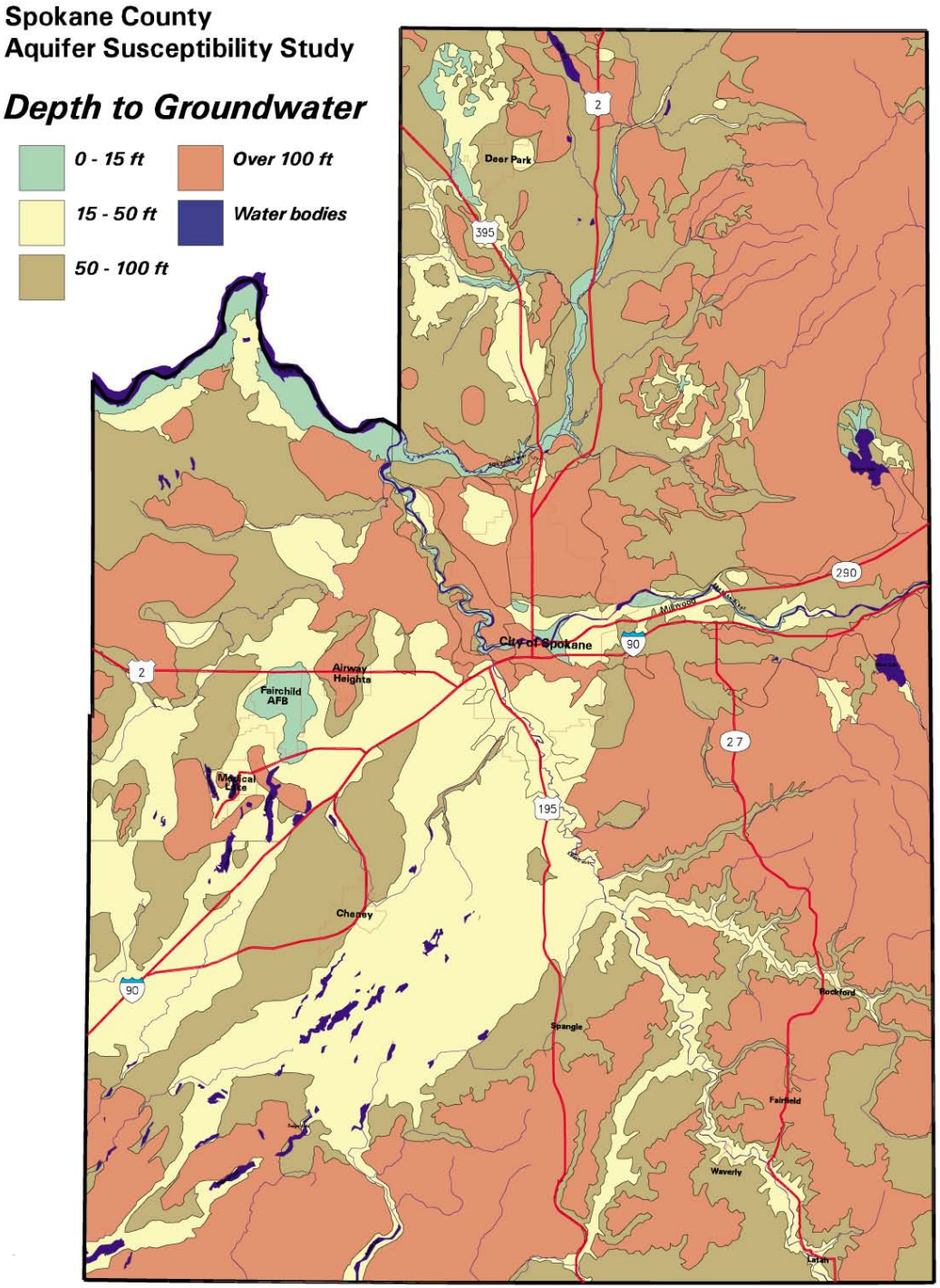


CARA based on SHADI

Low

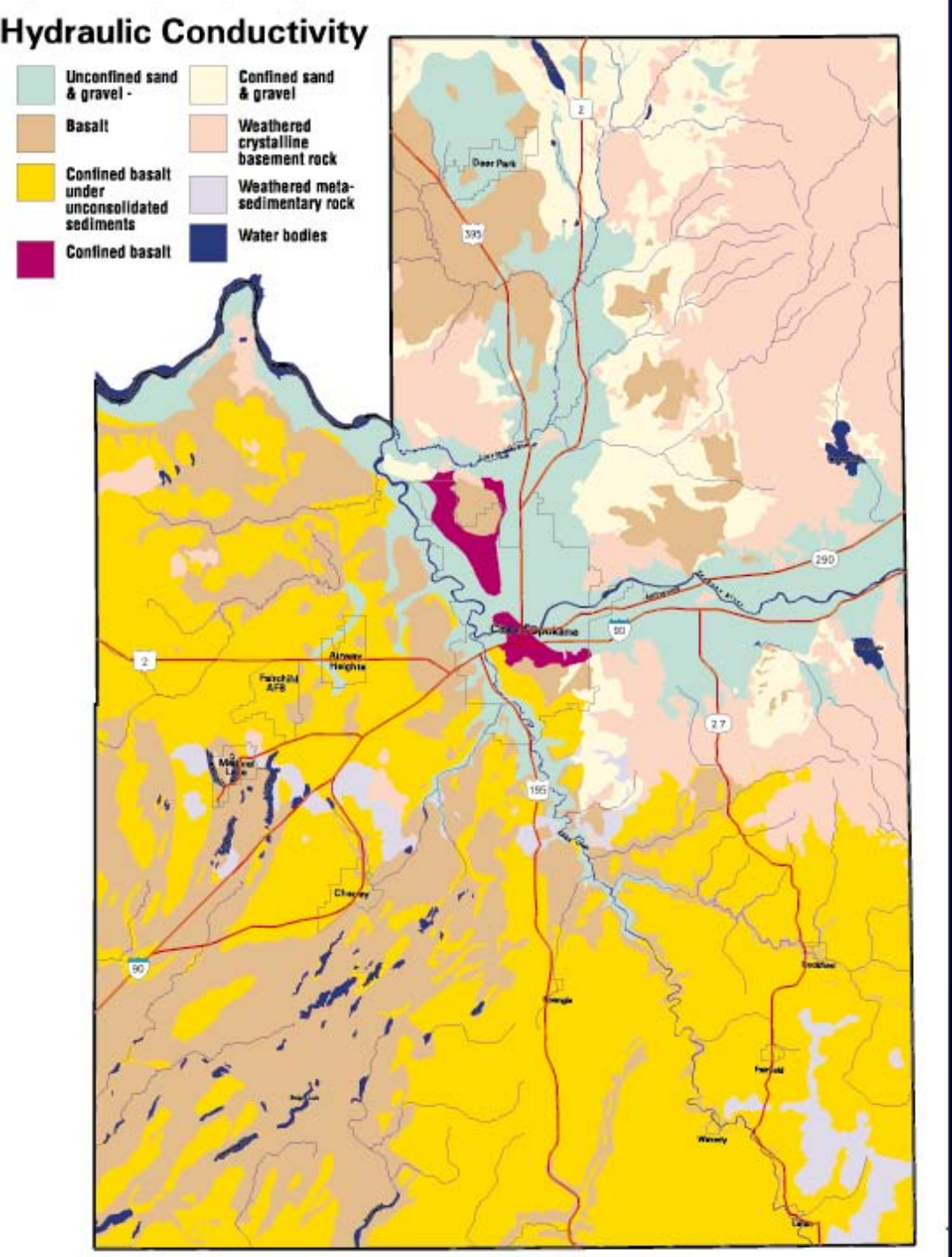
Medium

High



SHADI

Depth to Water (feet)
0 - 15
15 - 50
50 - 100
> 100



SHADI

Rating	Geology
10	Sand and gravel, unconfined, Spokane Aquifer
8	Sand and gravel, unconfined, other
4	Basalts, confined
4	Basalts, confined under unconsolidated sediments
4	Weathered crystalline basement (intrusive) rock
2	Weathered meta-sedimentary rock
NA	Basalt

Existing Stormwater UIC Wells

	<= 50	> 50
Register wells	3 years	5 years
UIC well assessment	5 years	7 years
Fix *problem UIC wells	Right away	Right away

* Public health hazard or high threat to groundwater

Well Assessment

Identify high-threat wells

- Land use
- Geology
- Depth to groundwater
- Groundwater protection area

Retrofit

Reduce the pollutant load

- Source control
- Catch basin or spill control
- Pretreatment
- Decommission

Well assessments for industrial facilities or facilities that handle hazardous substances

(For facilities that **DO NOT** have an NPDES Permit)

- ❑ Industrial stormwater pollution plan
- ❑ Documentation such as a site drainage map for the UIC wells; or
- ❑ No-exposure certification form

Contact

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